

Apparatus for the Production of Molded Concrete Pieces

Examiner: Théodore Art Unit: 4191 SN: 10/572,629 December 27, 2007

Specification

1. The abstract of the disclosure is objected to because, even in its amended form, it exceeds the maximum length of 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 12, the phrase "or the like" render the claims indefinite because the claims include elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claims unascertainable. See MPEP § 2173.05(d). Applicant is reminded that part numbers in the claims are not considered in evaluating the claims' scope.

Similarly, regarding claims 1, 7 and 12, the phrase "in particular" renders the claims indefinite because the claims include elements not actually disclosed, thereby rendering the scope of the claim unascertainable.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9, 11-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sayles (US 5,078,940).

Regarding claim 1, Sayles teaches an apparatus for the production of concrete building blocks (fig 2 part 52), a mold frame (fig 1 part 10) being provided which has at least one mold cavity into which concrete can be poured and which is at least partially bounded by upright mold walls (fig 1 parts 14, 12) of the mold frame, and, furthermore, the mold cavity being assigned at least one scraping member (fig 1 part 32) with which concrete can be scraped off on at least one exterior side of the molded concrete pieces, in order to form a roughened surface (fig 2 part 50) during an upward movement of the mold frame (fig 2 arrows) while the molded concrete pieces are being removed from the mold. Sayles discloses a scraping member, "a rearwardly extending lower wall or lip"

(col 3 ln 55-56). The Oxford English dictionary defines a lip as "something resembling the lips of the mouth" or "the margin of a cup or any similar vessel; e.g. of a bell" (1989 definition II, 4). It is the position of the examiner that the curvature of the exterior surface of the scraping member is inherent, given Sayles's description of said member as a lip. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. Inherency is not established by probabilities or possibilities. *In re Robertson*, 49 USPQ2d 1949 (1999).

Alternatively, it has been held that a mere change in shape without affecting the functioning of the part would have been within the level of ordinary skill in the art, *in re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would be obvious to a person of ordinary skill in the art to shape the scraping element taught by Sayles with various degrees of curvature in accordance with design requirements. It is also the position of the examiner that the criticality of the curvature of the scraping member does not provide patentable distinction.

Regarding claim 2, Sayles teaches that the scraping member (fig 1 part 32) is assigned to a mold wall (fig 1 part 12) and at least partially protrudes in relation to this mold wall (fig 1 part 12) toward the interior of the mold cavity and has a front, free scraping edge which faces the molded concrete piece.

Regarding claims 3-6, Sayles does not specify that the exterior surface of the scraping member has a partially or continuously concave profile in cross section in the

region between the scraping edge and the upright mold wall or that radius of curvature is constant.

However, Sayles discloses a scraping member, "a rearwardly extending lower wall or lip" (col 3 ln 55-56). The claims recite limitations in the scraping member's shape with no disclosed effect on function. It has been held that a mere change in shape without affecting the functioning of the part would have been within the level of ordinary skill in the art, *in re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would be obvious to a person of ordinary skill in the art to shape the scraping element taught by Sayles with various degrees of curvature in accordance with design requirements. It is the position of the examiner that the criticality of the curvature of the scraping member does not provide patentable distinction.

Regarding claim 7, Sayles teaches that the scraping member (fig 1 part 32) is arranged in the region of a lower free edge of the mold wall (fig 1 part 12) and extends continuously along the mold wall (col 3 ln 54-61).

Regarding claim 8, Sayles teaches that scraping members are arranged on at least two opposite mold walls of a mold cavity (fig 6), for the simultaneous formation of a roughened surface on corresponding opposite side surfaces of the molded piece.

Regarding claim 9, Sayles teaches that the scraping member (fig 1 part 32) is part of the mold wall (fig 1 part 12).

Regarding claim 11, Sayles teaches that the concrete carried along by the scraping member during removal of the molded pieces from the mold can be removed upward out of the mold cavities cavity (fig 2).

Regarding claim 12, Sayles teaches that the mold walls (fig 1 parts 14, 12) are of closed design, in such a manner that the mold walls do not have any recesses, apertures or the like.

Regarding claim 13, Sayles teaches that the knobs (fig 1 parts 36a-d, fig 4), which protrude towards the interior of the mold cavity and are arranged in the region of the upright mold walls (fig 1 part 12, fig 4 part 54).

Regarding claim 14, Sayles teaches that the knobs are arranged in a number of parallel rows one above another, the members of one row being arranged with uniform or regular distances between one another (fig 1 part 12, fig 4 part 54).

Regarding claim 15, Sayles does not specify that the rows of knobs are offset in a staggered manner to one another. However, Sayles teaches that the knobs are arranged in a number of parallel rows one above another, the members of one row being arranged with uniform or regular distances between one another (fig 1 part 12, fig 4 part 54). There are a finite number of ways to arrange rows of objects where the objects are spaced equidistantly within each row. Staggering rows is done to maintain equidistant spacing between objects in adjacent rows. One would expect that keeping the elements equidistant in a second dimension would have an effect analogous to that of keeping them equidistant in a first dimension. Therefore, it would obvious to stagger the rows explicitly taught by Sayles in order to equally space the knobs across two dimensions in the interest of equalizing their grip on the concrete block.

Regarding claim 16, Sayles teaches that the knob elements have a cuboidal design (fig 1 part 12, fig 4 part 54).

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sayles as applied to claims 1-9,11-16 above, and further in view of Allen (US 2,613,620).

Sayles does not teach a ram. However, Allen teaches a cylindrical mold wherein a ram (fig 3 part 14) entering the mold cavity on a top side of the mold frame has a ram plate (fig 3 part 15) which can move past the edge of the molding cavity (fig 3 line 28) when the cap (fig 3 part 11) is removed. The ram enables the user to push the preform (fig 3 part 18) through the shaping orifice (fig 3 part 20). The ram's clearing the orifice allows for the full recovery of excess bulk material (fig 3 part 18) from the molding cavity (fig 3 part 10). Therefore, it would be obvious to a person of ordinary skill in the art to incorporate into the apparatus taught by Sayles a ram entering a the mold cavity on a top side of the mold frame, the ram having a ram plate past which the scraping member can move during the removal of the molded concrete piece because Allen teaches a ram with a ram plate that pushes the bulk material to and past the mold's lower end for shaping and recovery.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAGALI P. THEODORE whose telephone number is (571)270-3960. The examiner can normally be reached on Monday through Thursday 9:00 a.m. to 6:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571- 272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Magali P. Théodore/
Examiner, Art Unit 4191

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 4191